

MEDICAL LEAD AND METHOD FOR MEDICAL LEAD MANUFACTURE

BACKGROUND OF THE INVENTION

5 - Field of the Invention:

The present invention relates to a medical leads and particularly to medical leads having unitary construction.

- Description of the Related Art:

Implantable leads form an electrical connection between a pulse
10 generator or other electronic device and a tissue or structure in the body. For example, leads transmit electric signals used to stimulate cardiac or nerve tissue in one direction and signals generated by sensors placed in proximity to particular organs or tissues in the opposite direction. Leads typically include one or more electrodes at the lead's distal end. The electrodes are designed to
15 form an electrical connection with a tissue or organ. In addition, most leads also include a lead connector at the lead body's proximal end. Lead connectors are adapted to electrically and mechanically connect leads to the pulse generators or other electronic medical devices. A conductor connects the electrode to the lead connector. Commonly, the conductor takes the form of a
20 single or multifilar wire coil. Although, there is an increasing interest in using stranded cables as conductors. Regardless of the conductor's form, an insulating material typically surrounds the conductors. Spinal chord stimulation leads are typically formed with individually insulated conductors surrounded by a separate lead body tube. Together, the conductor and the
25 insulating material form the lead body. The lead body couples the lead connector at the proximal end with the electrode at the distal end.

Present lead designs frequently electrically connect a separate electrode assembly to the distal end of the lead. This results in an electrical connection and a seam between the electrode assembly and the lead body. Other current
30 lead designs add ring electrodes over the lead body's distal end. To access the wound conductors within the lead body, the conductors are pulled from the